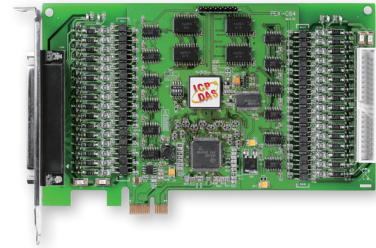


PEX-C64

PCI Express, 64-channel Open-collector Digital Output (Sink, NPN) Board



Features

- PCI Express x1 Interface
- 64-channel Optically-isolated Digital Output (Sink, NPN)
 - Supports Output Status Readback
- Supports Card ID (SMD Switch)
- 3750 V_{rms} Photo-isolation Protection
- Digital Input Arranged into Four Isolated Banks when using Four Isolated External Power Supplies

Introduction

The PEX-C64 board utilizes the PCI Express bus and provides 64 optically-isolated Digital Output channels, each of which includes a Darlington transistor that provides 3750 V_{rms} isolation, and an integrated suppression diode for the inductive load. The DO channels are allocated into four isolated banks when using four isolated external power supplies, and act as an interface between field logic signals, eliminating ground loop problems and isolating the host computer from potentially damaging voltage spikes.

The PEX-C64 board also includes an onboard Card ID switch that enables the board to be easily recognized via software if two or more cards are installed in the same computer. The PEX-C64 board is designed as an easy replacement for the PISO-C64U board without requiring any modification to either the software or the driver.

Software

- Drivers**
- 32/64-bit Windows XP/2003/2008/7/8/10
 - Linux
- Sample Programs**
- DOS Lib and TC/BC/MSC Demo
 - LabVIEW Toolkit
 - VB/VC/Delphi/BCB/VB.NET/C#.NET/VC.NET/MATLAB Demo

Hardware Specifications

Digital Output	
Isolation Voltage	3750 V _{rms}
Channels	64
Compatibility	Sink, Open Collector
Output Capability	100 mA/+30 V for each channel @ 100% duty
Response Speed	4 kHz (Typical)
General	
Bus Type	PCI Express x1
Card ID	Yes (4-bit)
Connectors	Female DB37 x 1 40-pin Box Header x 1
Power Consumption	400 mA @ +3.3 V 200 mA @ +12 V
Operating Temperature	0°C to +60°C
Humidity	5 to 85% RH, Non-condensing

Pin Assignments

Pin Assignment	Terminal No.	Pin Assignment
Ext. GND0	01	20 Ext. GND1
DO_0	02	21 DO_16
DO_1	03	22 DO_17
DO_2	04	23 DO_18
DO_3	05	24 DO_19
DO_4	06	25 DO_20
DO_5	07	26 DO_21
DO_6	08	27 DO_22
DO_7	09	28 DO_23
DO_8	10	29 DO_24
DO_9	11	30 DO_25
DO_10	12	31 DO_26
DO_11	13	32 DO_27
DO_12	14	33 DO_28
DO_13	15	34 DO_29
DO_14	16	35 DO_30
DO_15	17	36 DO_31
Ext. PWR0	18	37 Ext. PWR1
N.C.	19	

Pin Assignment	Terminal No.	Pin Assignment
Ext. GND2	01	02 Ext. GND3
DO_32	03	04 DO_48
DO_33	05	06 DO_49
DO_34	07	08 DO_50
DO_35	09	10 DO_51
DO_36	11	12 DO_52
DO_37	13	14 DO_53
DO_38	15	16 DO_54
DO_39	17	18 DO_55
DO_40	19	20 DO_56
DO_41	21	22 DO_57
DO_42	23	24 DO_58
DO_43	25	26 DO_59
DO_44	27	28 DO_60
DO_45	29	30 DO_61
DO_46	31	32 DO_62
DO_47	33	34 DO_63
Ext. PWR2	35	36 Ext. PWR3
N.C.	37	38 N.C.
N.C.	39	40 N.C.

Ordering Information

PEX-C64 CR	PCI Express, 64-channel Optically-isolated Digital Output Board (Sink, NPN, RoHS). Includes one CA-4037B Cable and two CA-4002 D-sub Connectors.
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